



Sauer Compressors

for Shipping

- Dependable Compressors:**
- reliable
 - low maintenance
 - compact



www.sauercompressors.de

125 
Sauer
125 Years of Power

Sauer **Compressors** for Shipping

- reliable
- low maintenance
- compact

International shipping with its stringent requirements for quality and reliability is Sauer's traditional area of activity. Our starting and working air compressors have proven their reliability in this demanding market. They are among the most modern and most economic compressors available today.

In particular the low maintenance 3-stage air-cooled starting air compressors (compared with the traditionally used 2-stage water-cooled compressors) contribute significantly to modern ship operation concepts. With these products, Sauer has become one of the leading manufacturers of compressors for shipping and offshore technology worldwide.





Our product range



2-stage air-cooled
starting-air compressors
up to 82 m³/h

4



3-stage air-cooled
starting-air compressors
up to 365 m³/h

6



2-stage water-cooled
starting-air compressors
up to 457 m³/h

8



Control- and
working-air compressors
up to 555 m³/h

10



Kiel – Home of Sauer Compressors.



2-stage air-cooled starting-air compressors

Sauer Compressors for Shipping

Today, the principle of air cooling is an international shipbuilding standard when lower capacity starting air compressors are concerned. Back in the 50s, Sauer had already started the development of air-cooled compressors in this capacity range as an alternative to water-cooled units which are high maintenance and more prone to failure.

Today, Sauer & Sohn's air-cooled starting air compressors are among the most modern and low maintenance compressors available worldwide. More than a thousand of these dependable compressors are delivered to our customers every year.

If you require references, please do not hesitate to contact us at sales@sauersohn.de

Sauer – dependable compressors.

Technical Data

2-stage air-cooled starting-air compressors											
Type	Final pressure max. bar	Stages	Cylinder	Speed rpm	Technical Data for a final pressure of 30 bar			Weight kg	Dimensions		
					Charging Capacity m ³ /h	Power consumption kW	Heat Dissipation kJ/sec		Length mm	Width mm	Height mm
WP 15 L	40	2	2	1170	13,0	2,7	5	135	856	600	635
				1470	16,5	3,4	5				
				1770	20,0	4,1	6				
WP 22 L	40	2	2	1170	17,5	3,5	5	135	856	600	635
				1470	22,0	4,4	7				
				1770	26,0	5,4	8				
WP 33 L	35	2	2	1170	26,0	5,1	6	145	890	600	630
				1470	32,5	6,5	9				
				1770	39,0	7,8	10				
WP 45 L	40	2	2	1170	41,5	7,6	10	318	1214	742	820
				1470	53,0	9,6	13				
				1770	62,0	11,5	15				
WP 65 L	40	2	2	1170	54,0	10,2	15	328	1254	742	820
				1470	68,0	12,8	17				
				1770	82,0	15,4	20				
H 25	40	2	2	50 double-strokes/min	1,8	Hand air compressor		28	315	230	340

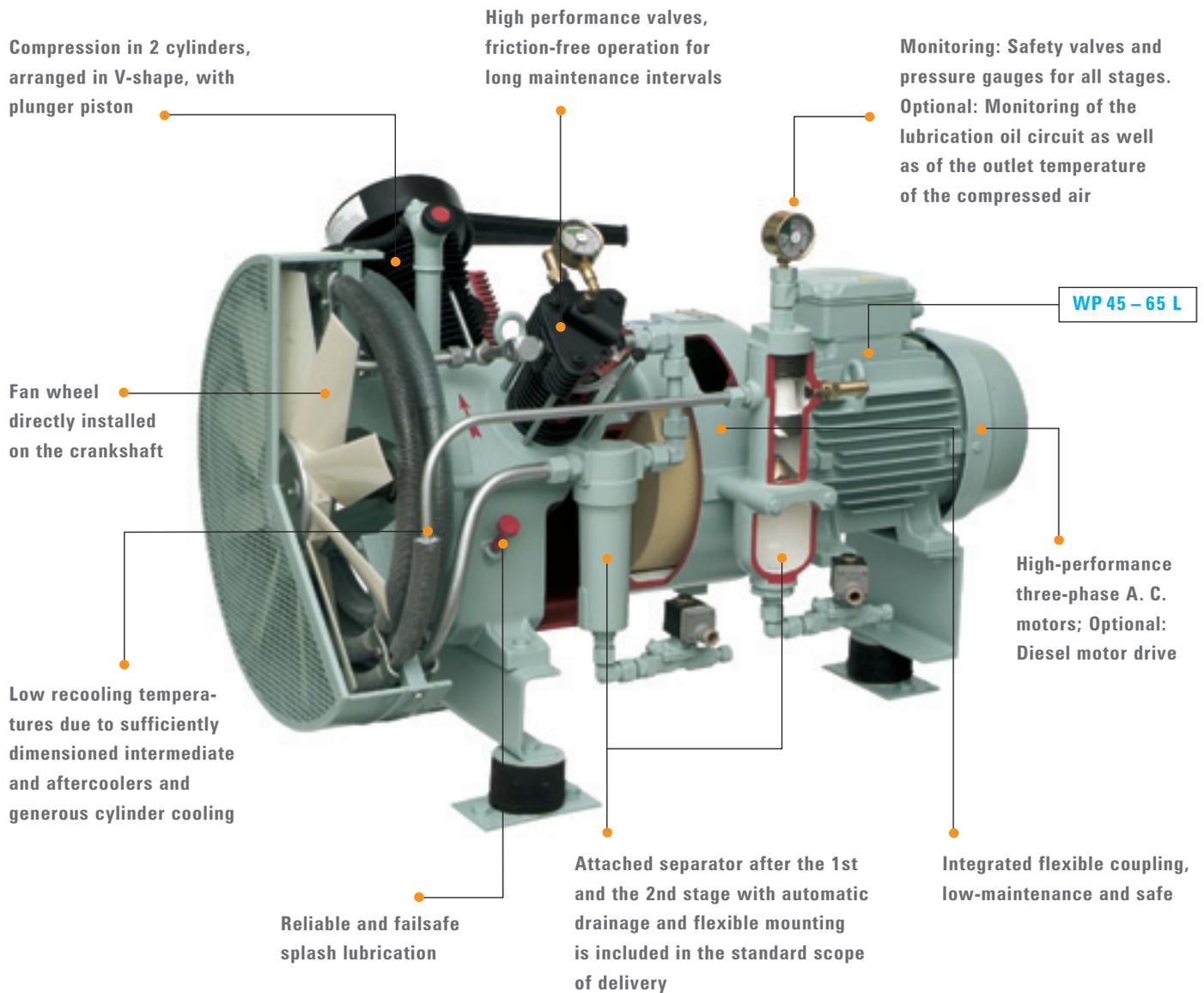
Performance data with 5% tolerance, referred to 20° C and an air pressure of 1013 mbar.

Charging Capacity according to ship building regulations.

Performance data on final pressure deviating from 30 bar will be provided upon request.

Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.

H 25 is also available with 30 and 63 l vessel.



General advantages

- Low installation due to absence of cooling water circuit
- Light-weight and less space required for installation
- Reliable and safe to operate, even at ambient temperatures up to 60°C
- Suitable for even the most difficult ambient conditions

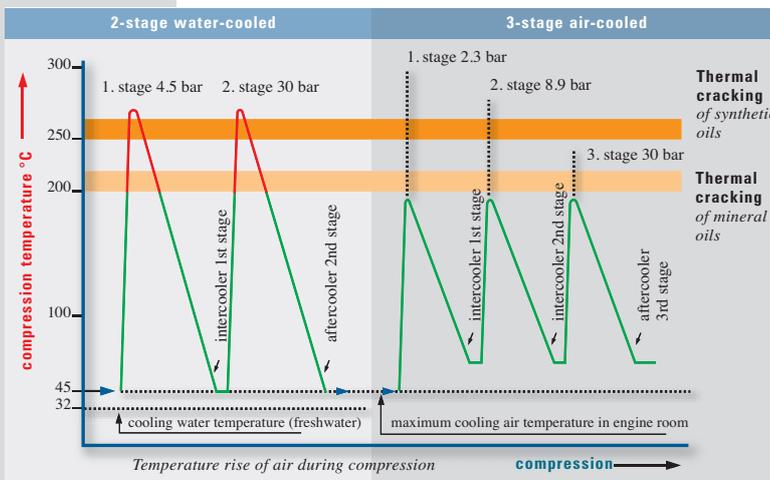


low maintenance 3-stage air-cooled starting-air

Sauer Compressors for Shipping

At the beginning of the 70s, Sauer & Sohn developed the low maintenance 3-stage air-cooled compressor in collaboration with wellknown German shipping companies in order to cover the increasing demand for low-maintenance auxiliary machines used in international shipping. Due to the 3-stage air-principle, general advantages of the air-cooled system could also be used for bigger compressor capacities.

In addition, the division of the pressure ratio into 3 stages – instead of 2 stages as in traditionally used water-cooled compressors – considerably decreases compression temperatures.



The consequence: Even when standard mineral oil is used, as e. g. circulating oil in main engines, any carbonization of compressor valves belongs to the past. About thousand units of the low maintenance compressors are delivered to our customers each year.

If you require references, please do not hesitate to contact us at sales@sauersohn.de

Sauer – dependable compressors.

Technical Data

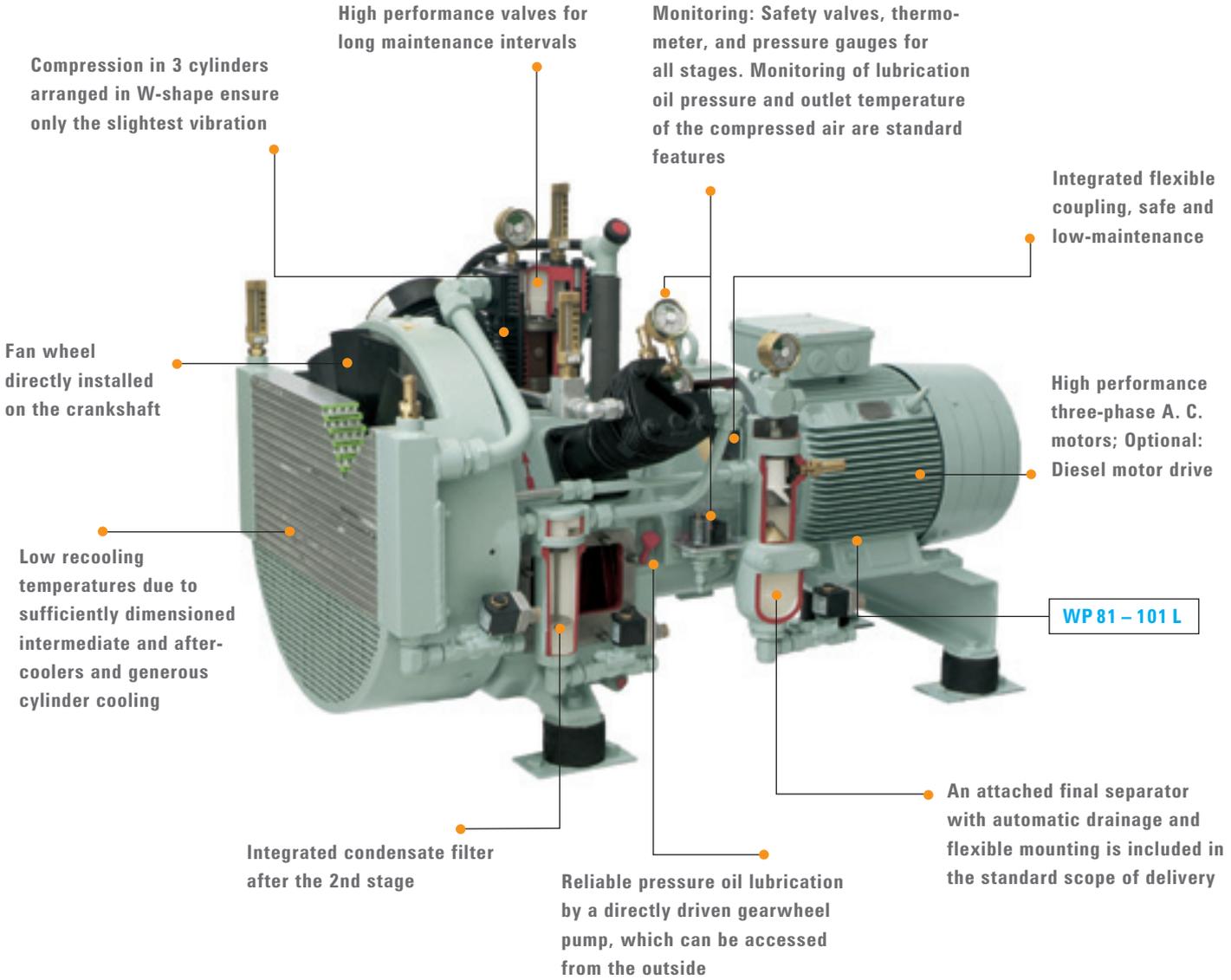
low maintenance 3-stage air-cooled starting-air compressors					Technical Data for a final pressure of 30 bar				Dimensions		
Type	Final pressure max. bar	Stages	Cylinder	Speed rpm	Charging Capacity m ³ /h	Power consumption kW	Heat Dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 81 L	40	3	3	1170	67	13,0	17	440	1345	945	900
				1470	85	15,6	21				
				1770	102	19,6	24				
WP 101 L	40	3	3	1170	82	16,0	20	440	1345	945	900
				1470	105	20,0	25				
				1770	125	24,4	29				
WP 121 L	40	3	3	1170	104	19,0	29	655	1565	960	955
				1470	134	25,3	34				
				1770	157	31,1	39				
WP 151 L	40	3	3	1170	124	23,0	29	700	1565	960	955
				1470	156	30,0	41				
				1770	183	38,0	48				
WP 271 L	40	3	4	1170	184	34,5	39	940	1765	1068	1097
				1470	233	43,0	50				
				1770	280	51,5	59				
WP 311 L	40	3	4	1170	252	41,3	48	1075	1835	1068	1097
				1470	315	56,3	80				
				1770	365	70,6	96				

Performance data with 5% tolerance, referred to 20° C and an air pressure of 1013 mbar.

Charging Capacity according to ship building regulations.

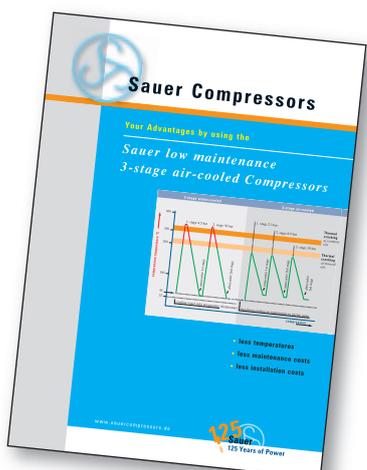
Performance data on final pressure deviating from 30 bar upon request.

Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.



General advantages

- Lowest compression temperatures due to division of the pressure ratio into 3 stages.
- Better air quality due to mounted separator after each stage.
- Reduced installation costs for the yard up to 7.500 USD per ship.
- Reduced maintenance costs for the shipowner.
- Standard warranty period of 24 months.
- Suitable for standard mineral oil SAE 30.
- Operation of compressors independent from central CW system.
- High reliability due to missing cooling water system.



For more details contact sales@sauersohn.de



2-stage water-cooled starting-air compressors

Sauer Compressors for Shipping

Towards the middle of the 90s, Sauer & Sohn developed a new range of water-cooled compressors for traditional use in shipping. With the cylinders arranged in V-shape and advanced competitive design features, we are able to offer a range of low maintenance and reliable water-cooled units.

The 2-stage water-cooled starting air compressors produced by Sauer & Sohn are part of an international shipbuilding standard. More than a thousand of these dependable compressors are delivered to our customers every year.

If you require references, please do not hesitate to contact us at sales@sauersohn.de

Sauer – dependable compressors.

Technical Data

2-stage water-cooled starting air compressors													
Type	Final pressure max. bar	Stages	Cylinder	Speed rpm	Technical Data for a final pressure of 30 bar				Dimensions				
					Charging Capacity m ³ /h	Power consumption kW	CW-Requirement l/min	Weight kg	Length mm	Width mm	Height mm		
WP 100	30	2	2	1170	82	15,9	23	500	1340	700	850		
				1470	101	19,5	29						
				1770	122	23,6	35						
WP 200	30	2	2	1170	142	26,0	35	770	1459	1025	886		
				1470	178	33,7	49					800	1695
				1770	206	39,6	57					800	1695
WP 240	30	2	2	1170	172	32,1	47	850	1535	1025	886		
				1470	207	40,9	60						
				1770	250	48,8	69						
WP 400	30	2	3	1170	306	52,2	69	1350	1810	1165	1095		
				1470	380	72,5	100						
				1770	457	81,5	116						

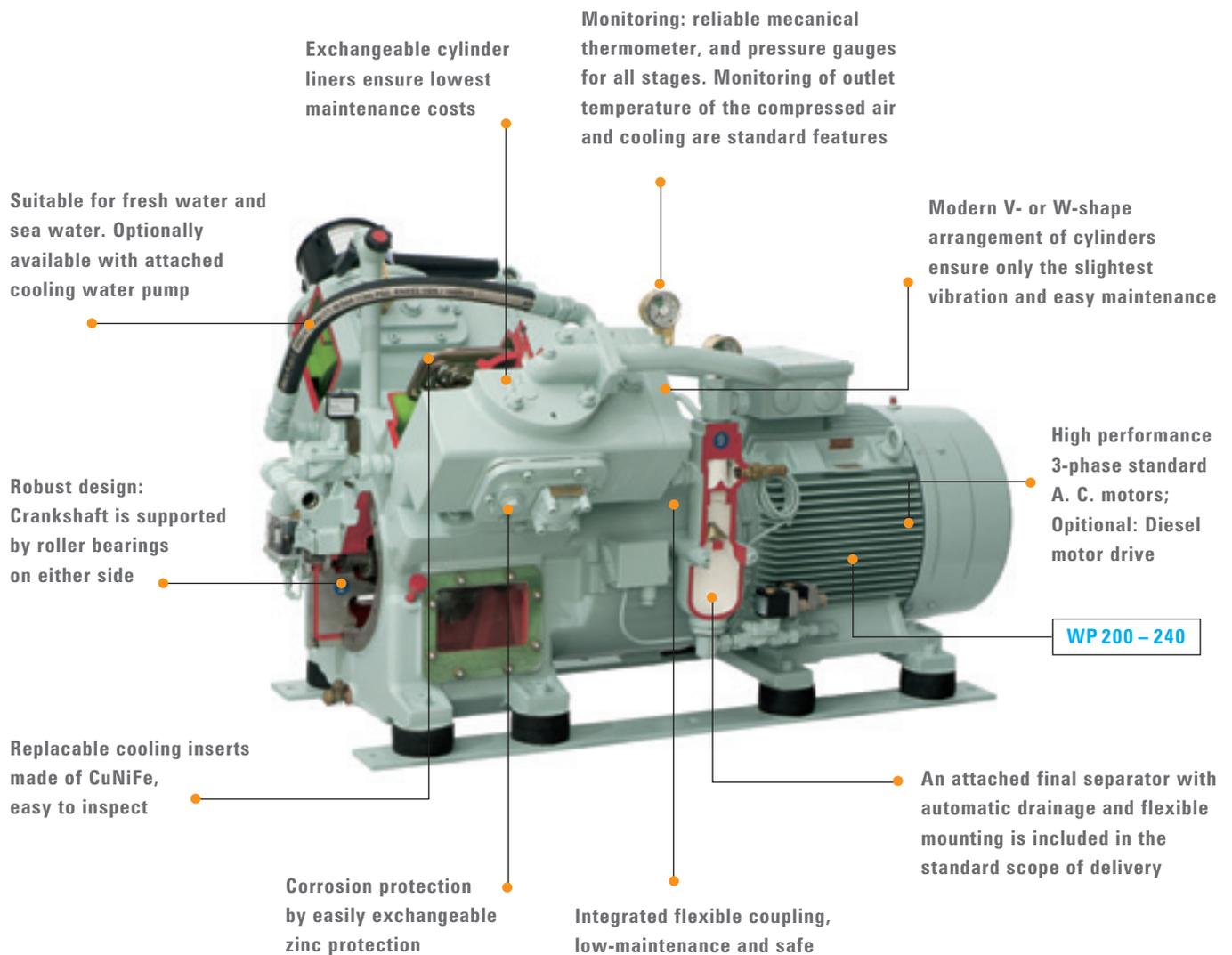
Performance data with 5% tolerance, referred to 20° C and an air pressure of 1013 mbar.

Charging Capacity according to shipbuilding regulations.

Performance data on final pressure deviating from 30 bar upon request.

Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.

Cooling water requirement referred to a $\Delta t = 10 K$



General advantages

- Low vibration
- Exchangeable cylinder liner
- Exchangeable cooler inserts
- Short stroke machine for compact dimensions and low vibrations
- Pressure oil lubrication for WP 200, WP 240 and WP 400
- Easy access to all maintenance and operation points



Control- and working-air compressors

Sauer Compressors for Shipping

Technical Data

Screw-type compressor, air-cooled										
Type	Version	Final pressure max. bar	Motor U/min	Technical Data for a final pressure of 8 bar				Dimensions		
				Capacity* m ³ /h	Power consumption kW	Heat Dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
SC 15	MA 50	12	2920	83	10,5	11,6	220	945	605	900
	MA 60		3520	100	12,7	14,0				
SC 22	MA 50	12	2920	113	13,2	14,5	235	1010	605	900
	MA 60		3520	136	15,9	17,5				
SC 26	MA 50	12	2930	148	16,4	17,6	450	1270	795	1170
	MA 60		3530	177	19,2	21,1				
SC 31	MA 50	12	2940	170	18,7	20,0	485	1270	795	1170
	MA 60		3540	204	22,5	24,8				
SC 42	MA 50	12	2960	234	28,6	31,5	580	1270	795	1170
	MA 60		3550	280	34,3	37,8				
SC 52	MA 50	12	2980	278	33,4	36,7	595	1270	795	1170
	MA 60		3555	334	40,0	44,0				
SC 61	MA 50	12	2965	387	41,4	44,4	900	1520	850	1355
	MA 60		3565	465	50,0	55,0				
SC 76	MA 50	12	2960	462	49,5	54,5	1000	1610	850	1355
	MA 60		3565	555	59,5	65,5				

Piston compressor, air-cooled											
Type	Final pressure max. bar	Stages	Cylinder	Speed rpm	Technical Data for a final pressure of 8 bar			Weight kg	Dimensions		
					Charging Capacity m ³ /h	Power consumption kW	Heat Dissipation kJ/sec		Length mm	Width mm	Height mm
WP 33 L	10	2	2	1170	28	4,5	6	145	890	600	630
				1470	35	5,5	9				
				1770	42	6,5	10				
WP 65 L	10	2	2	1170	58	8,5	15	328	1254	742	820
				1470	72	11,0	17				
				1770	87	13,0	20				
WP 146 L	10	2	2	1170	120	17,0	20	690	1415	869	877
				1470	152	21,0	25				
				1770	182	25,0	29				
WP 226 L	10	2	3	1170	238	23,2	39	720	1720	1028	1014
				1470	287	31,8	50				
				1770	345	39,2	58				

Control and working air											
Type	Final pressure max. bar	Stages	Cylinder	Speed rpm	Technical Data for a final pressure of 8 bar			Weight kg	Dimensions		
					Charging Capacity m ³ /h	Power consumption kW	CW-Requirement l/min		Length mm	Width mm	Height mm
WP 100	12	2	2	1170	88	14,3	23	500	1340	700	850
				1470	108	17,6	29				
				1770	125	21,3	35				
WP 200	12	2	2	1170	151	23,4	35	770	1459	1025	886
				1470	186	30,3	49				
				1770	221	35,6	57				
WP 240	12	2	2	1170	184	28,9	47	850	1535	1025	886
				1470	221	36,8	60				
				1770	267	43,9	69				
WP 400	12	2	3	1170	328	47,0	69	1350	1818	1165	1095
				1470	406	65,3	100				
				1770	468	73,4	116				



SC 31

Screw-type compressors, unlike oscillating reciprocating compressors, compress air in rotating screws, and operate without valves.

Sauer Screw-type compressors offer much more than industry compressors since they are the synthesis of thousands of industry compressors and of our fundamental knowledge of the requirements of international shipping. The particular design features of Sauer's screw-type compressors ensure trouble-free operation on the seven seas.



WP 226 L

As an **alternative** to the screw-type compressor, Sauer is able to deliver **reciprocating piston-type compressors** based on the well-known range of starting air compressors. Compared with screw-type compressors, these types are more suitable for shorter operation intervals due to their lower energy consumption as they are start-stop controlled.

The distinct advantages of piston compressors are the standardised parts and the similarity in terms of design with air-cooled starting air compressors. If you choose your ship compressors carefully, your starting, control and working air compressors will all have the same wearing parts.



WP 200 - 240

Our Recommendation

Sauer delivers both types of compressors. For requirements under 100 m³/h, we recommend that you use piston compressors and for performance requirements over 300 m³/h, we recommend screw compressors. For the 100 m³/h to 300 m³/h range we also recommend screw compressors, provided that the annual operation time is greater than 4,000 hours.

For more information or references please do not hesitate to contact us at sales@sauersohn.de

Sauer – dependable control and working air compressors of any type.

*Performance data with 5% tolerance, referred to 20° C and an air pressure of 1013 mbar.
Capacity of screw-type compressors according to DIN-ISO 1945.
Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.
Water-cooled screw-type compressors upon request.
* Larger capacity up to 2000 m³/h or capacity for other final pressures upon request.*

Your local agent:

J.P. Sauer & Sohn
Maschinenbau GmbH

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184-2009
Sauer
125 Years of Power

P.O. Box 9213
D-24157 Kiel
Phone +49 (0) 4 31/39 40-0
Fax +49 (0) 4 31/39 40-24
e-mail: info@sauersohn.de
Internet: www.sauersohn.de



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